Claims

- 1. A composition comprising an encapsulated crystalline lactic acid particle.
- 2. The composition of Claim 1 wherein the crystalline lactic acid particle comprises crystalline L(+)lactic acid.
- 3. The composition of Claim 1 wherein the crystalline lactic acid particle is encapsulated within a food-grade coating material comprising oil, fat, wax, carbohydrate, protein, polymer, or a mixture thereof.
- 4. The composition of Claim 3 wherein the food-grade coating material has a melting point between about 35 and 90°C.
- 5. The composition of Claim 1, wherein the food-grade coating material is a vegetable oil.
- 6. The composition of Claim 1, wherein the crystalline lactic acid particle has been treated with a wetting agent prior to or during encapsulation.
- 7. The composition of Claim 6 wherein the wetting agent is silica, starch, calcium lactate, methyl cellulose, or a combination thereof.
- 8. The composition of Claim 1 further comprising silica powder as a wetting agent and a partially hydrogenated fraction of a palm oil melting at 61°C as an encapsulating coating.
- 9. The composition of Claim 1 wherein the encapsulated particle comprises up to 95%(w/w) lactic acid based on the total weight of the encapsulated particle.

- 10. The composition of Claim 8 wherein the coating material or coating material plus wetting agent represents about 5 to 70%(w/w) of the encapsulated particle.
- 11. The composition of Claim 8 wherein the coating material or coating material plus wetting agent represents about 30 to 60%(w/w) of the encapsulated particle.
- 12. The composition of Claim 1 wherein, upon dispersion in water at room temperature, less than 10%(w/w) of the lactic acid is released into the water after 60 minutes.
- 13. A food product composition comprising the encapsulated crystalline lactic acid particle of Claim 1.
- 14. The food product composition of Claim 13 wherein the food product comprises a comminuted meat product, a bakery product, or an acid-sanded candy.
- 15. A method of preparing a food product comprising adding encapsulated crystalline lactic acid particles to the food product whereby the color, flavor, or shelf-life of the food product is enhanced compared to a similar food product prepared without adding lactic acid.
- 16. The method of Claim 15 wherein the food product comprises a comminuted meat product, a bakery product, or an acid-sanded candy.
- 17. The method of Claim 15 comprising the acid-sanding of candies wherein the candies are acid-sanded with encapsulated crystalline lactic acid particles.

- 18. A method of preparing encapsulated crystalline lactic acid particles comprising: preparing crystals of lactic acid; and coating the crystals with an encapsulating coating material.
- 19. The method of Claim 18 wherein the lactic acid crystals are about 200 to 800 microns in size.
- 20. The method of Claim 18 wherein the lactic acid crystals are encapsulated using a top-spray fluid bed coater.